



# Aviation Investigation Final Report

<b>Location:</b>	GREENFIELD, Indiana	<b>Accident Number:</b>	CHI99LA319
<b>Date &amp; Time:</b>	September 6, 1999, 11:00 Local	<b>Registration:</b>	N25WL
<b>Aircraft:</b>	VAN GROUW LIGHTNING	WHITE	<b>Aircraft Damage:</b> Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The pilot was flying the airplane on the first flight after an annual inspection to assure the airplane was operating properly. He reported the engine began losing power during the flight. Unable to maintain altitude the pilot made a forced landing in a corn field. Post accident inspection revealed the quick drain oil plug in the bottom of the oil sump was missing and oil exhaustion had occurred.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: improper installation of the oil quick drain plug which resulted in oil exhaustion to the engine. A factor was the corn crop encountered during the forced landing.

## Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - MECH FAILURE/MALF  
Phase of Operation: CRUISE - NORMAL

### Findings

1. (C) FLUID,OIL - EXHAUSTION
  2. LUBRICATING SYSTEM,OIL QUICKDRAIN/DRAIN PLUG - MISSING
  3. (C) MAINTENANCE,INSTALLATION - IMPROPER - OTHER MAINTENANCE PERSONNEL
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Occurrence #2: FORCED LANDING  
Phase of Operation: EMERGENCY DESCENT/LANDING

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Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER  
Phase of Operation: EMERGENCY LANDING

Findings

4. (F) TERRAIN CONDITION - CROP

## Factual Information

On September 6, 1999, at 1100 central standard time (cst), a Van Grouw White Lightning, N25WL, collided with a corn crop during a forced landing following a loss of engine power. The forced landing was made in Greenfield, Indiana. The commercial pilot was not injured and the airplane received substantial damage. The 14 CFR Part 91 personal flight was operating in visual meteorological conditions without a flight plan. The flight originated from the Mt. Comfort Airport, Indianapolis, Indiana, at 1020 cst.

The pilot reported that this was the first flight after having had the annual inspection on the airplane completed. He reported he departed the Mt. Comfort Airport and climbed to an altitude of 4,000 feet mean sea level (msl) over the airport. He continued to circle at this altitude for approximately 30 minutes while he checking that the airplane was functioning properly. He reported he then descended and cross the runway 25 localizer outbound to check the localizer operation. The pilot reported that after passing over the outer marker at 2,700 feet msl the engine began to lose power. He turned back toward the airport, but was unable to maintain altitude so he selected a field in which to land. The pilot reported that he believes the engine was still running when he touched down.

Inspection of the airplane by an inspector from the Federal Aviation Administration Indianapolis, Indiana, Flight Standards District Office revealed the engine, propeller, and both wings were damaged during the forced landing. The inspector reported that the screw in oil plug in the bottom of the oil sump was missing and the engine had suffered from oil exhaustion.

### Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	56, Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 Valid Medical-w/ waivers/lim	<b>Last FAA Medical Exam:</b>	June 10, 1999
<b>Occupational Pilot:</b>	UNK	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	1494 hours (Total, all aircraft), 154 hours (Total, this make and model), 42 hours (Last 90 days, all aircraft), 9 hours (Last 30 days, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	VAN GROUW	<b>Registration:</b>	N25WL
<b>Model/Series:</b>	WHITE LIGHTNING WHITE LIGH	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	Yes
<b>Airworthiness Certificate:</b>		<b>Serial Number:</b>	215
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	August 16, 1999 Annual	<b>Certified Max Gross Wt.:</b>	2800 lbs
<b>Time Since Last Inspection:</b>	1 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	778 Hrs	<b>Engine Manufacturer:</b>	Continental
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	IO-360-G2
<b>Registered Owner:</b>	JACKSON FIELDS AND MATTHEWS	<b>Rated Power:</b>	210 Horsepower
<b>Operator:</b>	WILL W. MATHEWS	<b>Operating Certificate(s) Held:</b>	None
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>		<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>		<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	5 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	270°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	29 inches Hg	<b>Temperature/Dew Point:</b>	29°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	INDIANAPOLIS , IN (MQJ)	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>		<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	10:20 Local	<b>Type of Airspace:</b>	Class E

## Airport Information

<b>Airport:</b>		<b>Runway Surface Type:</b>	
<b>Airport Elevation:</b>		<b>Runway Surface Condition:</b>	
<b>Runway Used:</b>	0	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>		<b>VFR Approach/Landing:</b>	Forced landing

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 None	<b>Latitude, Longitude:</b>	39.79021,-85.769683(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Sullivan, Pamela
<b>Additional Participating Persons:</b>	DENNY JONES; INDIANAPOLIS , IN
<b>Original Publish Date:</b>	June 21, 2000
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.ntsb.gov/Docket?ProjectID=47248">https://data.ntsb.gov/Docket?ProjectID=47248</a>

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